

response are provided to further clarify and distinguish Applicant's invention over the prior art relied upon by the Examiner in the Final Office Action.

Claim 25 recites a method of repositioning display spacers using inductive attraction, comprising:

- providing spacers made of electrostatic materials;
- providing an inductive chuck to attract the spacers by electrostatic force, wherein a voltage is applied to the inductive chuck and the spacers are lifted by the inductive chuck, wherein the spacers directly contact the inductive chuck, wherein the electrostatic force lifts the spacers and brings them into contact with the inductive chuck;
- providing a substrate;
- aligning the spacers with desired positions on the substrate; and
- interrupting the voltage applied to the inductive chuck, wherein the spacers directly contact the substrate.

In the rejections, the Examiner alleges that Namikawa teaches a method of repositioning spacers using an inductive chuck and Ellison teaches an inductive chuck wherein a voltage is applied and interrupted to control the clamping force of the chuck. The Examiner argues that it would have been obvious to incorporate the electrostatic force of Guenther into the method of Namikawa and Ellison.

Applicant respectfully disagrees for the reasons as described below.

1) In the rejections, the motivation for combining Guenther with Namikawa/Elison is "to prevent spacer agglomeration on the substrate of the chuck." See page 3 of the Office action. However, insofar as agglomeration of "spacers" on the "chuck" is not a problem in Namikawa/Elison, there would be no reason to modify Namikawa/Elison to prevent spacer agglomeration.

In particular, Fig. 12E of Namikawa shows that magnetic elements 114 are provided on the "chuck" 7. These magnetic elements 114 attract the magnetic element 113 of "spacer" 3/6/113.

In this arrangement, spacer agglomeration is avoided by spacing apart the magnetic elements 114. For example, col. 10, line 66 to col. 11, line 7 of Namikawa reads:

Then, as indicated at a step (5) in FIG. 12, a jig having magnetic elements 114 incorporated therein **at predetermined pitches** of arrangement of column members such as, for example, pitches of 360 .mum is arranged on a glass substrate 7. Then, the glass substrate 7 is put on the glass fiber bundle pieces 6 while turning the magnetic elements 114 down, resulting in the glass fiber bundle pieces 6 being aligned at one end thereof with the magnetic elements 114 while turning the Ni elements 113 up.

[Emphasis added]

Similarly, there is no need to prevent spacer agglomeration in Ellison, which simply teaches controlling clamping force on a film with magnets. There is no multiplicity of “spacers” to agglomerate or prevent from agglomerating disclosed in this reference.

2) If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Also see MPEP 2143.01.

Namikawa calls for the “spacers” to be disposed at a predetermined pitch. See, for example, col. 3, lines 1-11, col. 8, lines 6-23. As noted above, this is achieved by spacing apart the magnetic elements 114. For example, col. 10, line 66 to col. 11, line 7.

To the contrary, Guenther teaches charging spacer particles to a first polarity and then blowing them to a substrate charged with a second polarity with a dry air sprayer. See col. 4, lines 11-14. In particular, in col. 4, 14-15, Guenther teaches:

Electrostatic attraction causes the spacer particles to adhere to the substrate while electrostatic repulsion between the particles prevents particle agglomeration on the substrate.

Applicant respectfully submits that modification of Namikawa/Ellison to incorporate the teaching of Guenther would make it impossible achieve the "predetermined pitch" between spacers as called for by Namikawa.

3) If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). Also see MPEP 2143.01.

As noted above, Guenther teaches charging spacer particles to a first polarity and then blowing them to a substrate charged with a second polarity with a dry air sprayer. Col. 4, 11-14. Electrostatic attraction causes the spacer particles to adhere to the substrate while electrostatic repulsion between the particles prevents particle agglomeration on the substrate. Col. 4, 14-15.

However, modification of Namikawa/Ellison to employ this teaching would require a substantial reconstruction and redesign of the elements shown in Namikawa/Ellison as well as a change in the basic principle under which the Namikawa/Ellison construction was designed to operate.

In particular, with regard to the creation and disposition of the spacers, Namikawa teaches the following in col. 10, line 52 to col. 11, line 14:

Next, a step (2) shown in FIG. 12 is carried out. More particularly, thousands of glass fibers of 50 .mu.m in diameter are bundled and bound resin. Then, the glass fiber bundle thus bound is sliced into a length of 200 .mu.m, resulting in sliced glass fiber bundle pieces 6 being provided.

Thereafter, a Ni element 113 is formed on one end of each of the sliced glass fiber bundle pieces 6 by vacuum deposition, as indicated at a step (3) in FIG. 12.

Subsequently, the resin used for binding the glass fiber bundle is dissolved in an organic solvent, to thereby obtain the sliced glass fiber bundle pieces 6 to each of which the Ni element 113 is adhered and from each of which the resin is removed, as indicated at a step (4) in FIG. 12.

Then, as indicated at a step (5) in FIG. 12, a jig having magnetic elements 114 incorporated therein at predetermined pitches of arrangement of column members such as, for example, pitches of 360 .mu.m is arranged on a glass substrate 7. Then, the glass substrate 7 is put on the glass fiber bundle pieces 6 while turning the magnetic elements 114 down, resulting in the glass fiber bundle pieces 6 being aligned at one end thereof with the magnetic elements 114 while turning the Ni elements 113 up.

Then, a step indicated at (6) in FIG. 12 is executed. More particularly, the glass fiber bundle pieces 6 each are contacted at the other end thereof with ultraviolet-curing adhesive 111 which contains an inorganic material and is previously deposited by a thickness of several microns on a glass substrate 112, so that the adhesive 111 is adhered to the other end of each of the glass fiber bundle pieces 6.

Applicant submits that the bundling, slicing, and arranging of glass fiber bundles as taught by Namikawa/Ellison cannot be modified to the attraction and repulsion of charged particles on a substrate as taught by Guenther without changing the basic principle of operation of Namikawa/Ellison.

Conclusion

For at least these reasons, Applicant respectfully submits that a *prima facie* case of obviousness cannot be established in connection with these claims. Furthermore, as it is Applicant's belief that a *prima facie* case of obviousness is not established for claim 25, the

Examiner's arguments in regard to the dependent claims are not addressed here. Allowance of claims 25 and 27-29 is respectfully requested.

Applicant therefore believes that the application is now in condition for allowance and respectfully requests so.

Respectfully submitted,

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